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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/586,736	01/09/2007	Joachim Lohr	L7725.06116	5985

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EXAMINER	
PATEL, CHANDRAHAS B	

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/586,736	LOHR ET AL.	
	Examiner	Art Unit	
	Chandrahas Patel	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 July 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-40* is/are pending in the application.

4a) Of the above claim(s) *1-23* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *24-40* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 July 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *See Continuation Sheet*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :7/21/2006, 7/31/2006, 11/20/2006, 4/25/2007, 7/10/2007.

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 24, 28, 32, 36, 40 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 24, 28, 32, 36, 40, it is not clear what applicant means by *restricting the transmission format combination subset of transmitting devices to determine a maximum resource common to the plurality of devices*. Examiner cannot conclude what *transmission format combination subset* refers to and what applicant means by *a maximum resource of the transmitting device*. Examiner gives the language its broadest reasonable interpretation when applying prior art to above claims.

Regarding claims 24, 28, 40, applicant explains the feature of controlling retransmission of data while in the second part applicant talks about scheduling data transmission. It is not clear as to how both features are related and are necessary for the invention to operate.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 32-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Hwang et al. (US-PGPUB 2002/0168945).

Regarding claim 32, Hwang teaches a method for controlling the transmission timing of data retransmissions in a wireless communication system, wherein a HARQ protocol is used with synchronous retransmissions from a transmitting entity to a receiving entity via a data channel **[Abstract]**, and wherein the transmitting entity performs the method steps of: transmitting a data packet to the receiving entity **[Page 3, Paragraph 34]**, receiving a feedback message from receiving entity and a common control message **[Page 3, Paragraph 34]**, retransmitting the data packet to the receiving entity after a predetermined time span upon having received the feedback message **[[Page 6, Paragraph 75]**, restricting the transmission format combination subset of the mobile terminal to determine a maximum resource according to the common control message **[Page 6, Paragraph 75]**.

Regarding claims 33, 37, Hwang teaches feedback messages indicating the successful or the unsuccessful reception of a data packet are transmitted via one control channel **[Page 4, Paragraph 46]**.

Regarding claims 34, 38, Hwang teaches the information in the feedback messages simultaneously received with scheduling related control information. **[Page 4, Paragraph 46]**.

Regarding claims 35, 39, Hwang teaches the feedback messages and scheduling related control signaling are sent on the same channelization code **[Page 4, Paragraph 46]**.

Regarding claim 36, Hwang teaches a mobile terminal in a wireless communication system wherein a HARQ protocol is used with synchronous retransmissions from a transmitting entity to a receiving entity via a data channel **[Abstract]**, the mobile terminal comprising: a transmitter operable to transmit a data packet to the receiving entity **[Page 3, Paragraph 34]**, a receiver operable to receive a feedback message from the receiving entity and a common control message **[Page 3, Paragraph 34]**, wherein the transmitter is operable to retransmit the data packet to the receiving entity after a predetermined time span upon having received the feedback message **[Page 6, Paragraph 75]**, a restricting unit operable to restrict the transmission format combination subset of the mobile terminal to determine a maximum resource according to the common control message **[Page 6, Paragraph 75]**.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 24-31, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hwang et al. (US-PGPUB 2002/0168945) in view of Padovani et al. (USPN 7,079,550).

Regarding claim 24, Hwang teaches a method for controlling the transmission timing of data retransmissions in a wireless communication system, wherein a HARQ protocol is used with synchronous retransmissions from a transmitting entity to a receiving entity via a data channel **[Abstract]**, and wherein the receiving entity performs the method steps of: receiving a data packet from the transmitting entity **[Fig. 2, 111]**, determining whether the data packet has been successfully decoded **[Fig. 2, 120]**, if it has been determined that the data packet has not been successfully decoded **[Fig. 2, 120]**, transmitting a feedback message to the transmitting entity **[Fig. 2, 126]**, wherein the feedback message indicates to the transmitting entity to transmit a retransmission data packet for the received data packet after a predetermined time span upon having received the feedback message **[Page 6, Paragraph 75]**.

However, Hwang does not teach scheduling data transmissions of a plurality of transmitting entities comprising the transmitting entity, and transmitting a common control message to a plurality of transmitting entities comprising the transmitting entity, wherein the common control message restricts the transmission format combination subset of each of the plurality of transmitting entities to determine a maximum resource common to the plurality of transmitting entities.

Padovani teaches scheduling data transmissions of a plurality of transmitting entities comprising the transmitting entity **[Col. 10, lines 15-23]**, and transmitting a common control message to a plurality of transmitting entities comprising the transmitting entity **[Col. 10, lines 27-35]**, wherein the common control message restricts the transmission format combination subset of each of the plurality of transmitting entities to determine a maximum resource common to the plurality of transmitting entities **[Col. 10, lines 37-39, 50-54]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to schedule data transmissions for a plurality of transmitting entities so that maximum data throughput and minimum transmission delay can be optimized **[Col. 10, lines 37-39]**.

Regarding claims 25, 29, Hwang further teaches the feedback messages indicating the successful or the unsuccessful reception of a data packet are transmitted via a control channel **[Page 4, Paragraph 46]**.

Regarding claim 26, Hwang further teaches the information in the feedback messages are sent simultaneously with scheduling related control information **[Page 4, Paragraph 46]**.

Regarding claims 27, 31, Hwang further teaches the feedback messages and scheduling related control signaling are sent on the same channelization code **[Page 4, Paragraph 46]**.

Regarding claim 28, Hwang teaches a base station in a wireless communication system wherein a HARQ protocol is used with synchronous retransmissions from a transmitting entity to a receiving entity via a data channel **[Abstract]**, the base station comprising: a receiver operable to receive a data packet from the transmitting entity **[Fig. 2, 111]**, a determining unit operable to determine whether the data packet has been successfully decoded **[Fig. 2, 120]**, a transmitter operable to transmit a feedback message to the transmitting entity **[Fig. 2, 126]**, if it has been determined that the data packet has not been successfully decoded **[Fig. 2, 126]**, wherein the feedback message indicates to the transmitting entity to transmit a retransmission data packet for the received data packet after a predetermined time span upon having received the feedback message **[Page 6, Paragraph 75]**.

However, Hwang does not teach a scheduler operable to schedule data transmissions of a plurality of transmitting entities comprising the transmitting entity, wherein the transmitter is

operable to transmit a common control message to a plurality of transmitting entities comprising the transmitting entity, wherein the common control message restricts the transmission format combination subset of each of the plurality of transmitting entities to determine a maximum resource common to the plurality of transmitting entities.

Padovani teaches a scheduler operable to schedule data transmissions of a plurality of transmitting entities comprising the transmitting entity **[Col. 10, lines 15-23]**, wherein the transmitter is operable to transmit a common control message to a plurality of transmitting entities comprising the transmitting entity **[Col. 10, lines 27-35]**, wherein the common control message restricts the transmission format combination subset of each of the plurality of transmitting entities to determine a maximum resource common to the plurality of transmitting entities **[Col. 10, lines 37-39, 50-54]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to schedule data transmissions for a plurality of transmitting entities so that maximum data throughput and minimum transmission delay can be optimized **[Col. 10, lines 37-39]**.

Regarding claim 30, Hwang further teaches the information in said feedback messages is combined with scheduling related control information and is jointly encoded **[Page 4, Paragraph 46]**.

Regarding claim 40, Hwang teaches the base station comprising: a receiver operable to receive a data packet from the transmitting entity **[Fig. 2, 111]**, a determining unit operable to determine whether the data packet has been successfully decoded **[Fig. 2, 120]**, a transmitter operable to transmit a feedback message to the transmitting entity **[Fig. 2, 126]**, if it has been determined that the data packet has not been successfully decoded **[Fig. 2, 126]**, wherein the

feedback message indicates to the transmitting entity to transmit a retransmission data packet for the received data packet after a predetermined time span upon having received the feedback message **[Page 6, Paragraph 75]**, the communication system is adapted to perform a HARQ protocol with synchronous retransmission to retransmit data from the mobile terminal to the base station via a data channel **[Page 2, Paragraph 24]**.

However, Hwang does not teach a scheduler operable to schedule data transmissions of a plurality of transmitting entities comprising the transmitting entity, wherein the transmitter is operable to transmit a common control message to a plurality of transmitting entities comprising the transmitting entity, wherein the common control message restricts the transmission format combination subset of each of the plurality of transmitting entities to determine a maximum resource common to the plurality of transmitting entities.

Padovani teaches a scheduler operable to schedule data transmissions of a plurality of transmitting entities comprising the transmitting entity **[Col. 10, lines 15-23]**, wherein the transmitter is operable to transmit a common control message to a plurality of transmitting entities comprising the transmitting entity **[Col. 10, lines 27-35]**, wherein the common control message restricts the transmission format combination subset of each of the plurality of transmitting entities to determine a maximum resource common to the plurality of transmitting entities **[Col. 10, lines 37-39, 50-54]**.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to schedule data transmissions for a plurality of transmitting entities so that maximum data throughput and minimum transmission delay can be optimized **[Col. 10, lines 37-39]**.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chandrahas Patel whose telephone number is 571-270-1211. The examiner can normally be reached on Monday through Thursday 7:30 to 17:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CBP

RICKY Q NGO
SUPERVISORY PATENT EXAMINER